ABSTRACT

IF STATEMENT HAVING AN EXPRESSION SETUP CLAUSE TO BE UTILIZED IN STRUCTURED ASSEMBLY LANGUAGE PROGRAMMING

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A state machine for an assembler capable of processing structured assembly language is disclosed. The state machine for an assembler capable of processing structured assembly language IF constructs includes five states, namely, an IF state, an ELSE state, an END_IF state, an ELSE_IF state, and a SETUP_IF state. In response to recognizing a SETUP_IF clause during the IF state or the ELSE_IF state, the process transitions to the SETUP_IF state. In response to recognizing an ELSE_IF clause during the SETUP_IF state, the process transitions to the ELSE_IF state.